

QUAIL NEWS

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The newsletter of game bird research and management from the Bollenbach Chair in Wildlife Ecology, Oklahoma State University.

DID RING-NECKED PHEASANTS BIAS OUR THINKING ON QUAIL HARVEST MANAGEMENT?

If ever a bird came along to engender liberal frames of mind on game bird harvest, it would be the ring-necked pheasant. The well documented survival skills of these wily Asians probably seep into our thinking on quail harvest management.

The information that follows comes from Durward L. Allen's classic, *Our Wildlife Legacy* (Funk & Wagnalls, 1962).

"There appears to be no biological objection," Allen wrote, "to shooting 90 percent of the cocks."

This would leave a sex ratio of 10 hens/cock in spring. A ratio this out-of-kilter would set trophy buck managers to blithering like Miss California. But pheasants are polygamous and one cock can easily service 10 hens.

"With any reasonable amount of escape cover present, legal hunting, however heavy, practically never results in the overshooting of cocks."

Allen cited a study from the Rose Lake Management Area in Michigan. No matter how intense the hunting pressure, the area yielded a fairly constant take of about 11 cocks/100 acres.

Pheasants are fast learners. At the Rose Lake Area, 70% of the total harvest

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occurred in the first week of hunting. Thereafter, the birds learned to avoid hunters by running and using impenetrable cover.

“Season length is of little consequence...” If you can’t find and flush birds, it doesn’t matter how long you hunt them.

“A season limit means nothing at all. A daily bag limit helps distribute the easy early-season harvest among more hunters.”

Long-term, overriding goals of state wildlife agencies are to protect the hunted resource and to equitably distribute the harvest among a state’s hunters.

Allen also mentioned what he called the compensation principle.

“If we fail to take a hunting harvest, Nature does it for us. It is quite possible, and usual, for the hunter to get in ahead of natural mortality factors and convert the annual surplus of game to his own use merely by taking it before something else happens to it.”

They’re going to die anyway, eh?

Allen is talking pure Paul Errington here; recall that Errington postulated the doomed-surplus model of small game harvest management. *That concept is*

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now discredited, though it could and sometimes would appear to explain population behavior for cottontails, quail and other small game animals with high annual mortality rates.

What about bobwhite harvest?

“In light of all evidence,” wrote Allen, “it seems realistic and conservative to conclude that a fair and safe quail crop for the hunter is half the fall population. It is easy to regulate this in the case of the bobwhite, for it comes neatly packaged in coveys and a covey size of 6 or 7 birds can be the indicator [of 50% harvest].”

Er... problem here. The number of birds in a covey tells you nothing about harvest rate. That’s because smaller coveys coalesce to form coveys of around 11 birds, a number thought to maximize survival.

So did the ring-necked pheasant engender liberal frames of mind that carried over into our outlook on bobwhite harvest management?

Let me guess. The 1930s, 40s and 50s must have been heady times for wildlife biologists because studies of small game harvest were yielding wholly unexpected results. Harvest usually was a minor issue for these species. A lot of thinking probably got swept up in the zeitgeist, the spirit and values of the times. Maybe bobwhites influenced the thinking on pheasant harvest, too.

Whatever the real situation, Durward Allen’s book is one of the classics in the game management literature. If you are a professional wildlife biologist, it is good reading as history of ideas, many

of which are current today. If you are a hunter and lay conservationist, the book will help you understand the mindsets of wildlife biologists and it will give you insight into the workings of nature. Used copies are available from dealers that can be accessed on the Internet.

PEERLESS PROGNOSTICATIONS FOR THE '09-'10 SEASONS

“I think we will have a good Quail year. As good but probably better than last year. May even be really good.”—Sue Selman, Selman Ranch, **Buffalo, OK** (north-central OK)

“If the past 2 years were rated as D-, this year should be a B-. I have seen some coveys of young bobwhites numbering 12–18 birds—all in places I haven’t seen birds before.”—Justin Rader, **Canadian, TX**

“The traditionally strong Rolling Plains looks to be in for an average—to deceivingly weak—[season] in some areas.”—Dale Rollins, Texas AgriLife Extension, **San Angelo**, and *West Texas Livestock Weekly*

“I think that we will have a real solid ‘average’ yearcame really close to the possibility of a great one but that was stymied by the hot, dry August.”—Rick Snipes, **Aspermont, TX**

“I’ve seen a number of years down here [South Texas] when the so-called spring rains did not rain until July. While production during those years was late, it was also good, with great hunting where people kept habitat in good shape. Having essentially no rain from mid-September 2008 until early-September

2009 is a whole ‘nother story, and I doubt there will be a happy ending, at least for the ‘09-10 hunting season.”—Leonard A. Brennan, Kleberg Institute, **Kingsville, TX**

[Editor’s note: Your editor examined the Palmer Drought Severity Index for the Texas-Oklahoma region. Research by Markus Peterson and associates, Texas A&M University, has shown the Palmer Index is a good predictor of autumn quail abundance. Drought in South Texas has been severe in the past year. As one moves north, average conditions come into play, for example, the High Plains of Texas and western Oklahoma. Of course, regional summaries do not capture county-by-county variation so conditions can be above or below average on specific properties.]

TENT CATERPILLARS ON SAND PLUM

Quail hunters who venture out in spring may see silk tents on sand plum. The eastern tent caterpillar constructs these tents. This animal is an interesting inhabitant of quail country.

The adult female moth lays 200–300 eggs on a plum stem in late spring or early summer. Fully formed caterpillars develop within the eggs but remain quiescent for a year. They hatch when plum breaks bud the following year.

Caterpillars start constructing the tent soon after emerging from eggs.

Visit the Bollenbach Chair website at <http://bollenbachchair.okstate.edu/>. The site contains information on the biology and management of bobwhites, coming events, back issues of *Quail News*, and other topics.

They venture forth 3 times each day to feed: just before dawn, mid-afternoon and after sunset. Caterpillars add silk to the tent each time they emerge to feed.

Because the tent is layered, it is thermally heterogeneous (different temperatures in different layers). This layering provides caterpillars the opportunity to use optimal temperatures for growth and survival, depending on circumstances.

Fully grown caterpillars disperse and produce cocoons in protected places. Adults emerge about 2 weeks later. They mate and lay eggs on the same day they emerge and the females soon die.

The caterpillars defoliate plum and other hosts in the vicinity of the tent. However, the defoliation is inconsequential because leaves reappear within weeks.



Editorial: Knowing is seeing

Humans have a property which is interesting if not odd.

A few years back I got interested in butterfly watching. One day I encountered an eastern tailed blue, which is a teensy weensy little butterfly. After I knew it, I saw it all

about my lawn. The point is, I didn't see it till I knew it.

In spring 2009 the campus newspaper did a story about an award I had received. The student reporter was Nick Mendez. After I knew Nick Mendez, I saw him whizzing by on bikes and skateboards and partaking of fast food at the student union. I didn't see him till I knew him.

Since high school I've had a penchant for looking up words. I ran across "demitasse" in some novel. This is a small cup for serving strong black coffee or espresso after dinner. After I knew the word, I saw it repeatedly. I even heard it from an avid quail hunter, Rick Snipes of Aspermont, TX.

The interesting if not odd property of humans is that we tend to see only what we know.

The management implication of this property is that we can see more of and therefore better appreciate nature's offerings if we take the time to know.

The rangeland habitats of bobwhites in western Oklahoma and north and south Texas support a rich diversity of plants and animals.

Some of these organisms relate to hunting only in that they occupy hunted areas. Non-game birds such as cardinals and pryrholoxias (desert cardinals) are the rubies of quail country. If one takes the time to glass seemingly nondescript birds, one will see other gems such a ruby-

crowned kinglets and yellow-rumped warblers. The gaudy red-headed woodpecker might enliven a hunt in a bottom of decadent cottonwood trees in western Oklahoma or north Texas.

Other organisms relate to hunting because they provide commodities to bobwhites and other quail. Sand sagebrush, little bluestem and western wheatgrass provide nesting cover. Bristle grasses, panic grasses, queen's delight, and many other plants provide food. You will see them if you know them.

Butterflies, too. A species that leaps to mind is the goatweed leafwing because it is surprisingly bobwhite like in its affinities. This butterfly's wings are oddly shaped, dull camouflage below and brilliant red above. The caterpillars grow on goatweeds (crotons), excellent bobwhite food. Adults feed on sap and rotting fruit. If you find an agglomeration of reddish butterflies on the scat of a predator that has been eating sand plums, it will be the goatweed leafwing.

"Education is a wonderful thing," said Oscar Wilde, "but it is well to remember from time to time that nothing that is worth knowing can be taught."

Unless, of course, you want to see.

"Many men go fishing all their lives" said Henry David Thoreau, "without knowing that it is not fish they are after."

The same is undoubtedly true of quail hunting, and we can enrich that experience by knowing and seeing.

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Bollenbach Chair in Wildlife
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MEXICAN QUAIL SENT TO ITALY

The recent shipment of 2,928 Mexican quail to the University of Bologna, Bologna, Italy, for restocking purposes, was the first large consignment of such birds made to a European country, according to the Biological Survey of the United States Department of Agriculture.

The quail were brought in from Mexico at Brownsville, Tex., and were shipped through an American importer on February 28.

Reports from quail inspectors on the Mexican border indicate that 70,321 birds were brought in up to March 30. Revolutionary activities in Mexico interfered with quail importations during the week ending March 9, through cessation of railroad transportation, but with restoration of the lines, importations will probably resume normal proportions during the remainder of April.

[Editor's note: The above is a verbatim transcription of a press release issued by

the Bureau of Biological Survey on 10 April 1929. The quail were bobwhites. The releases were unsuccessful, but eastern bobwhites released in the 1960s established a sustaining population in Italy.

Tens of thousand of bobwhites were trapped in Texas and Mexico and sent to northeastern states in the first quarter of the 20th Century.]

*In the cultivation of the [Bobwhite] quail, there are two methods that usually are employed in whole or in part. Under one of these methods, every effort is made to protect the native stock and to insure its increase. Vermin, such as rats, cats, skunks, foxes, and hawks, are assiduously trapped and shot. Suitable cover is provided, and various food crops are planted for the use of the Bobwhite. Under the other method, large numbers of foreign birds are imported from other territories, especially from Texas. The foreign birds are purchased in lots by the hundred and even by the thousand. Often both plans are put in practice on the same plantation, the foreign birds being used as a reinforcement to the native birds; and the success of the interbreeding is carefully watched.—Edward S. Spaulding, *The Quails*, Macmillan 1949:94–95.*

BITS AND PIECES.....

- How old must bobwhite hens be before they can breed and lay eggs? “Under usual conditions of rearing, holding, and winter

maintenance, caged bobwhites normally reach sexual maturity at 10–12 months of age. Juvenile bobwhites approach full size and attain adult plumage, becoming somatic [body size] adults, about 3–4 months of age. When somatic adults are [held under artificial light], reproduction occurs at 5–7 months of age, an advance in sexual maturity of 5–6 months.” This information is from Charles M. Kirkpatrick, “Age Versus Environment as Conditions for Reproduction in Caged Bobwhites,” which appeared in *The Journal of Wildlife Management* in 1964. Based on these results, we would *not* expect wild-hatched bobwhites to breed in the same year that they hatched. In fact, we might expect late hatched bobwhites to breed later in the season in the following year. We know that some bobwhite hens do not initiate their first nest until July or August.

- *Cacciatore* means hunter in Italian. The dish, *cacciatore*, is also called “hunter’s stew.” It includes meat such as chicken or rabbit, tomatoes, potatoes, onions, mushrooms, herbs and sometimes wine. [Ought to work with quail.]
- In response to low deer populations around 1900, several states enacted buck-only harvest laws, e.g., California in 1901 and Oregon in 1923. Hunters raised hob! This was not the way to manage deer. The deer herd grew quickly and by the mid-20s was damaging the countryside due to overpopulation. State agencies

- proposed either-sex harvest. Hunter raised hob! It is immoral to shoot does. Such is the nature of game harvest regulations. (Source: *Our Wildlife Legacy* by Durward L. Allen, Funk & Wagnalls, 1962.)
- “Some ten years ago [1930s], some of the orchardists hereabouts became exasperated at the damage that the finches, grosbeaks, and orioles were doing to the apricot and fig crops. The simplest means of destroying these birds seemed to be to put out drinking fountains filled with arsenic tainted water. This was very effective.”-- Edward S. Spaulding, *The Quails*, Macmillan 1949:117. [The times ‘a done changed, eh Bobby?]
 - “Considering the matter further, it seems to me likely that in some instances poison has been put out for the [California] quail deliberately. There are cases where large flocks of quail have been very destructive to crops. This has been true of grapes in small vineyards, especially.— Edward S. Spaulding, *The Quails*, Macmillan 1949:116.
 - “There is little doubt that regular practice will improve both the working ability of the dog’s mind, as well as the discriminatory quality of his nose.”—William G. Syrotuck, *Scent and the Scenting Dog*, Barkleigh Productions, 1972
 - ***Smoke Management for Prescribed Burning*** by John R. Weir and J. D. Carlson (2009, 13pp.) is available for free from the Department of Natural Resource

Ecology and Management, 8C Ag Hall, Oklahoma State University, Stillwater, OK 74078.

- ***A Primer on Natural Resource Science*** by Fred S. Guthery (Texas A&M University Press, April 2008) is available from the Department of Natural Resource Ecology and Management, 8C Ag Hall, Stillwater, OK 74078 for \$20 (soft cover) or \$40 (hard cover). Prices include shipping and handling. “Guthery has written a tour de force in depth that will shape the field of wildlife science for many years to come.”—Steven W. Buskirk, Department of Zoology and Physiology, University of Wyoming. Winner of the Outstanding Book Award, Texas Chapter and National Chapter of The Wildlife Society, 2009.
- ***On Bobwhites*** by Fred S. Guthery (Texas A&M University Press, 2000) is available from the Department of Natural Resource Ecology and Management (address above). The book is in its second printing and available only in paperback (\$20, postage paid).

Support quail research. Send a tax-deductible contribution made payable to “OSU Foundation/Game Bird Research Fund” in care of Fred S. Guthery, Department of Natural Resource Ecology and Management, 008C Ag Hall, Oklahoma State University, Stillwater, OK 74078. Contributors receive *Quail News* and *Quail Flash*.